IN THE CLAIMS

1. (Currently amended) A method for asynchronously transporting narrowband and broadband transmissions over a link comprising:

providing at least one host terminal for receiving and transmitting communications over a transmission line;

converting narrowband transmissions to and from composite asynchronous transfer mode (ATM) cells by separating data and signaling portions of said narrowband transmissions into separate byte positions in each of the composite ATM cells; and

transferring the composite asynchronous transfer mode (ATM) cells over the transmission link, the composite asynchronous transfer mode (ATM) cells including both narrowband and broadband composite cells such that an entire bandwidth of the transmission line is available for both narrowband and broadband transmissions.

2. (Original) The method as recited in claim 1, wherein the composite ATM cells include pairs of ATM cells and further comprising the step of constructing a first composite cell of the pair which includes data for a plurality of channels and a second composite of the pair which includes signaling information associated with each of the plurality of channels.

3. (Original) The method as recited in claim 2, wherein each pair of cells is logically linked to reassemble the data and the signaling information for each channel.

4. (Original) The method as recited in claim 2, wherein the first composite ATM cell of each pair includes voice telephony data for a plurality of channels in the first composite ATM cell and signaling information associated with each of the plurality of channels in the second composite ATM cell of each pair.

5. (Original) The method as recited in claim 2, wherein the narrowband transmissions include integrated services digital network (ISDN) data for a plurality of channels in the first composite ATM cell of each pair and signaling information associated with each of the plurality of channels in the second composite ATM cell of each pair.

6. (Original) The method as recited in claim 1, wherein the composite ATM cells are transferred periodically and the method further comprising the step of transporting the first composite ATM cell of each pair every period and the second composite ATM of each pair every fourth period.

7. (Previously presented) The method as recited in claim 1, wherein at least one of said composite ATM cells includes integrated services digital network (ISDN) data and voice telephony data.

8. (Original) The methods as recited in claim 1, wherein the composite ATM cells include a first composite cell which includes data for a plurality of channels, a second composite cell which includes signaling information associated with each of the plurality of channels and a third composite cell which includes messaging information associated with each of the plurality of channels.

9. (Original) The method as recited in claim 1, wherein the composite ATM cells each include data for a plurality of channels, signaling information associated with each of the plurality of channels and messaging information associated with each of the plurality of channels.

10. (Original) The method as recited in claim 1, further comprising the step of connecting the host terminal to a optical network unit by employing the transmission line.

11. (Currently amended) A method for asynchronously transporting narrowband and broadband transmissions over a link comprising:

providing at least one network unit for receiving and transmitting communications over a transmission line;

converting narrowband transmissions to and from composite asynchronous transfer mode (ATM) cells by separating data and signaling portions of said narrowband transmissions into separate byte positions in each of the composite ATM cells; and

transferring the composite asynchronous transfer mode (ATM) cells over the transmission link, the composite asynchronous transfer mode (ATM) cells including both narrowband and broadband composite cells such that an entire bandwidth of the transmission line is available for both narrowband and broadband transmissions.

12. (Original) The method as recited in claim 11, wherein the composite ATM cells include pairs of ATM cells and further comprising the step of constructing a first composite cell of the pair which includes data for a plurality of

channels and a second composite cell of the pair which includes signaling information associated with each of the plurality of channels.

13. (Original) The method as recited in claim 12, wherein each pair of cells is logically linked to reassemble the data and the signaling information for each channel.

14. (Original) The method as recited in claim 12, wherein the first composite ATM cell of each pair includes voice telephony data for a plurality of channels in the first composite ATM cell and signaling information associated with each of the plurality of channels in the second composite ATM cell of each pair.

15. (Original) The method as recited in claim 12, wherein the narrowband transmissions include integrated services digital network (ISDN) data for a plurality of channels in the first composite ATM cell of each pair and signaling information associated with each of the plurality of channels in the second composite ATM cell of each pair.

16. (Original) The method as recited in claim 11, wherein the composite ATM cells are transferred periodically and the method further comprising the step of transporting the first composite ATM cell of each pair every period and the second composite ATM of each pair every fourth period.

17. (Previously presented) The method as recited in claim 11, wherein at least one of said composite ATM cells includes integrated services digital network (ISDN) data and voice telephony data.

18. (Original) The method as recited in claim 11, wherein the composite ATM cells include a first composite cell which includes data for a plurality of channels, a second composite cell which includes signaling information associated with each of the plurality of channels and a third composite cell which includes messaging information associated with each of the plurality of channels.

19. (Original) The method as recited in claim 11, wherein the composite ATM cells each include data for a plurality of channels, signaling information associated with each of the plurality of channels and messaging information associated with each of the plurality of channels.

20. (Original) The method as recited in claim 11, further comprising the step of connecting the network unit to a host terminal by employing the transmission line.

21. (Currently Amended) A system for asynchronously transporting narrowband and broadband transmissions over a link comprising:

at least one host terminal for receiving communications from and transmitting communications to a back plane;

at least one network unit coupled to the at least one host terminal by a transmission line; and

the at least one host terminal and the at least one network unit each including a circuit pack for converting narrowband communications to and from composite asynchronous transfer mode (ATM) cells such that an entire bandwidth of the transmission line is available for both narrowband and broadband

transmissions, where data and signaling portions of said narrowband transmissions are separated into separate byte positions in each of the composite ATM cells.

22. (Original) The system as recited in claim 21, wherein the composite ATM cells include pairs of ATM cells wherein a first composite cell of the pair includes data for a plurality of channels and a second composite cell of the pair includes signaling information associated with each of the plurality of channels.

23. (Original) The system as recited in claim 22, wherein each pair of cells is logically linked to reassemble the data to the signaling information for each channel.

24. (Original) The system as recited in claim 22, wherein the narrowband transmission includes voice telephony data for a plurality of channels in the first composite ATM cell of each pair and signaling information associated with each of the plurality of channels in the second composite ATM cell of each pair.

25. (Original) The system as recited in claim 22, wherein the narrowband transmission includes integrated services digital network (ISDN) data for a plurality of channels in the first composite ATM cell of each pair and signaling information associated with each of the plurality of channels in the second composite ATM cell of each pair.

26. (Previously presented) The system as recited in claim 22, wherein at least one of said composite ATM cells includes integrated services digital network (ISDN) data and voice telephony data.

27. (Original) The system as recited in claim 21, wherein the circuit pack includes a narrowband interface for converting pulse modulated signals to and from the composite asynchronous transfer mode (ATM) cells.

28. (Original) The system and recited in claim 21, wherein the circuit pack includes a broadband interface for converting broadband signals to and from the composite asynchronous transfer mode (ATM) cells.

29. (Original) The system as recited in claim 21, wherein the circuit pack includes a multiplexer for addressing information between a narrowband and a broadband interface.

30. (Original) The system as recited in claim 21, wherein the network unit is co-located with a service subscriber.

31. (Original) The system as recited in claim 21, wherein the composite ATM cells include header information employed for directing the composite ATM cells to a destination.

32. (Original) The system as recited in claim 21, wherein the composite ATM cells include a first composite cell which includes data for a plurality of channels, a second composite cell which includes signaling information associated with each of the plurality of channels and a third composite cell which includes messaging information associated with each of the plurality of channels.

33. (Original) The system as recited in claim 21, wherein the composite ATM cells each include data for a plurality of channels, signaling information associated with each of the plurality of channels and messaging information associated with each of the plurality of channels.

34. (Currently amended) A system for asynchronously transporting data and voice telephony over a link comprising:

a host digital terminal for receiving communications from and transmitting communications to a back plane, the back plane providing both narrowband and broadband communications from a network;

an optical network unit coupled to the host digital terminal by an optical transmission line;

the host digital terminal and the optical network unit each include a circuit pack for converting the narrowband communications to and from composite asynchronous transfer mode (ATM) cells, the circuit pack including a narrow band interface and a broadband interface for selectively transporting information over the optical transmission line such that an entire bandwidth of the optical transmission line is available for both voice telephony and data transmissions, where data and signaling portions of said narrowband communications are separated into separate byte positions in each of the composite ATM cells.

35. (Original) The system as recited in claim 34, wherein the composite ATM cells include pairs of ATM cells and a first composite cell of the pair includes data for a plurality of channels and a second composite cell of the pair includes signaling information associated with each of the plurality of channels.

36. (Original) The system as recited in claim 35, wherein the narrowband transmission includes integrated services digital network (ISDN) data for a plurality of channels in the first composite ATM cell of each pair and signaling

information associated with each of the plurality of channels in the second composite ATM cell of each pair.

37. (Previously presented) The system as recited in claim 35, wherein at least one of said composite ATM cells includes integrated services digital network (ISDN) data and voice telephony data.

38. (Original) The system as recited in claim 34, wherein the narrowband interface converts pulse modulated signals to and from the composite asynchronous transfer mode (ATM) cells.

39. (Original) The system as recited in claim 34, wherein the broadband interface converts broadband signals to and from the composite asynchronous transfer mode (ATM) cells.

40. (Original) The system as recited in claim 34, wherein the circuit packs include a multiplexer for selectively transporting information between the narrowband and the broadband interfaces.

41. (Original) The system as recited in claim 34, wherein the optical network unit is co-located with a service subscriber.

42. (Original) The system as recited in claim 34, wherein the composite ATM cells include header information employed for directing the composite ATM cells to a destination.

43. (Original) The system as recited in claim 34, wherein the composite ATM cells include a first composite cell which includes data for a plurality of channels, a second composite cell which includes signaling information associated

with each of the plurality of channels and a third composite cell which includes messaging information associated with each of the plurality of channels.

44. (Original) The system as recited in claim 34, wherein the composite ATM cells each include data for a plurality of channels, signaling information associated with each of the plurality of channels and messaging information associated with the plurality of channels.